



CARDIOVASCULAR IMPLANT DURABILITY



October 14-16, 2019

Asilomar Conference Center

Pacific Grove, CA

www.cvidconference.org

Contact cvid2019@gmail.com

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Attendees, Sponsors, and Exhibitors

This conference is ideal for device developers and clinicians interested in cardiovascular implant design and durability. With renowned engineering and physician speakers from industry, academia, and the FDA, this conference will provide an up-to-date review of the field. Sponsored by medical device companies and with exhibits by preclinical, clinical, image processing, simulation, equipment manufacturing, benchtop testing, device design, OEM, and consulting service companies.

To exhibit or sponsor, please contact cvid2019@gmail.com

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DAY ONE

Chair: Chris Cheng, Stanford Univ.

Opening: Clinical Sequelae Related to Device Fractures

Ken Ouriel, Syntactx

Capturing Motion with Medical Imaging

Vascular Deformation Quantification, Gilwoo Choi, Heartflow, Inc

Coronary Arteries & the Heart, Mark Reisman, Univ. of Washington

Thoracic and Abdominal Aorta, Kelly Suh, Stanford Univ.

The Peripheral Vasculature, Chris Cheng, Stanford Univ.

IVC Biomechanics & Devices, William Kuo, Stanford Univ.

Neurovascular Biomechanics & Devices, Vitor Pereira, Univ. Toronto

The MATADORS Project, Kelly Emerton, Cleveland Clinic

Panel: Industry Perspective on Mechanical Durability

DAY TWO

Chair: Tina Morrison, FDA

Fundamentals of Finite Element Analysis, Nuno Rebelo

FEA for Cardiovascular Durability Assessment,

Payman Saffari, Engage MDS

Richard Swift, Cook Medical

Validation of Stress & Strain Predictions, Kenneth Perry, EchoBio

Regulatory Considerations of ASME V&V 40, Kenny Aycock, FDA

Limitations of FEA, Craig Bonsignore, Confluent Medical Technologies

Next Generation FEA Models, Aaron Stebner, Colorado Sch. of Mines

Harnessing FEA to Augment Bench & Clinical Data, Tina Morrison, FDA

Panel: Regulatory Perspective on Mechanical Durability

DAY THREE

Chair: Alan Pelton, G.RAU Inc.

Introduction to Fatigue & Durability, Rob Ritchie, UC Berkeley

Testing of Medical Devices, Brian Berg, Boston Scientific

Fatigue-to-Fracture, ASTM F3244, Jason Weaver, FDA

Intro to Digital Image Correlation (DIC), Sam Daly, UC Santa Barbara

Use of DIC for Cardiovascular Durability Prediction,

Curtis Goreham-Voss, Medtronic

Design Considerations for Cardiovascular Durability,

Ming Wu, Edwards Lifesciences

Stress-Based Durability Prediction, Ramesh Marrey, Cardinal Health

Strain-Based Durability Prediction, Alan Pelton, G.RAU Inc.

Closing: Aligning Regulatory & Producer's Needs to Improve Patient

Experience, Bram Zuckerman, FDA

Panel: Patient Perspective on Mechanical Durability

This event links anatomic and physiological conditions to implant design and to the engineering mechanics of fracture. Special highlights are panel discussions from the perspective of manufacturers, regulators, and physicians/engineers-turned-patients.

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